A COMPANY-LEVEL TACTICAL SIMULATION

ACHTUNG PANZER

> KHARKOV 1943 <

MAIN MENU

1) Launch the game using a Desktop shortcut or "Graviteam / Achtung Panzer - Kharkov 1943" Start Menu program group.

2) Select an operation and hit [ENTER].

3) Read a briefing and proceed to operation phase [ESC].

OPERATION PHASE

4) Select a platoon and its destination in order to move your troops. Your goal is to occupy and hold keypoints, control the area and avoid having your units surrounded by enemy forces. The more keypoints and area coverage you control, the more victory points you receive on the current turn. A side with the most victory points wins a battle.

5) To begin a tactical battle, attack the enemy in a square next to the selected platoon [RMB].

6) Press [F3] or click the icon to alter or reinforce the squads inside a platoon.

7) Press [F4] or click the icon to view the statistics of your platoons and squads.

8) Press [ENTER] or click the icon and wait for AI turn to proceed to the next phase of the turn.

9) If there are the icon symbols on the operation map click [LMB] on any of them to proceed to the tactical combat phase. Platoons deployed at the nearby squares are taking part in the tactical battle.

10) Loading of the tactical phase begins. This may take some time.

DEPLOYMENT MODE

11) Deploy your squads at the marked squares. Try to use trenches and cover the keypoints marked with banners. Use a panel in upper right corner to select your units quickly. Click [RMB] to go to the unit.

12) Hit [ENTER] once the deployment is completed. The phase is over and the game goes to preliminary orders assignment mode.

TACTICAL PHASE

1. Quick selection panel.
2. An enemy key point that must be captured.
3. A machinegun.
4. A tank.
5. An anti-tank cannon.
6. Platoon commander.
7. An allied key point that must be protected.
8. Infantry.
9. Offer a ceasefire.
A. Attack enemy.
B. Defend.
C. Move.
D. Begin game.
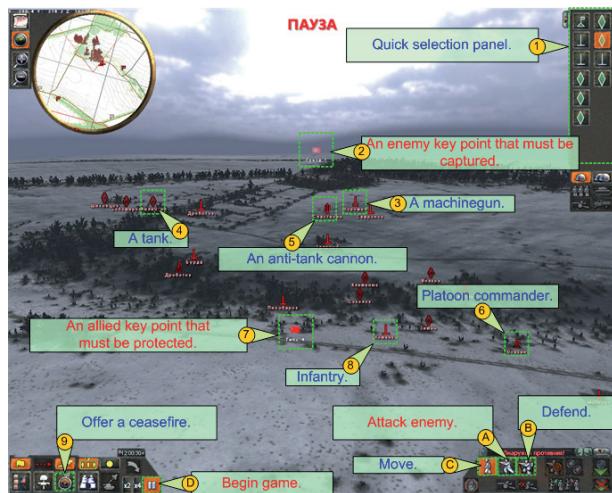
13) Assign orders to your units, if necessary.

14) Hit [ENTER] key to proceed to combat phase.

15) Control your units, trying to hold the keypoints and destroy enemy troops or make them surrender. Repulse enemy attacks and capture enemy keypoints.

ATTENTION! It is not necessary to destroy the enemy; it is enough to push him out of the battlefield. Such a platoon is considered routed in operational phase and won't be able to fight or prevent your advance for a while.

16) Use fire support (via air and artillery spotters), fire from covered positions, and cover your troops in trenches, craters and buildings. Use roads to quickly move your units.

17) If the battle is coming to stalemate, click the icon to offer ceasefire.

18) If your troops cannot stop the enemy offensive, retreat: click the icon.

ATTENTION! The platoons who just retreated may remain unavailable in operational phase for a while.

1.1 SYSTEM REQUIREMENTS

MINIMUM SYSTEM REQUIREMENTS
CPU: AMD Athlon x2 4200+, Intel Pentium D 3GHz
RAM: 1 Gb
Video card: ATI Radeon x1600 256 Mb, nVidia GeForce 7600 256 Mb
Sound card: DirectX8-compatible
Operating system: Windows XP SP2

RECOMMENDED SYSTEM REQUIREMENTS
CPU: AMD Athlon 64 X2 6000+, Intel Core 2 Duo 3GHz
RAM: 2 Gb
Video card: ATI Radeon X4850 512 Mb, nVidia GeForce 8800 320 Mb
Sound card: DirectX8-compatible
Operating system: Windows Vista SP1

ATTENTION! A video card with Pixel/Vertex shader support, version 3.0 is necessary to run the game.

You can only install the game under Administrator privileges. (It is recommended to disable UAC on Windows Vista OS).

The game requires a SSE-enabled CPU.

The game may function incorrectly if a CPU or a video card is overclocked.

1.2 RUNNING AND UNINSTALLING THE GAME

Launch the game using the "Achtung Panzer Kharkov 1943" shortcut on the Desktop or within "Graviteam / Achtung Panzer - Kharkov 1943" Start Menu program group.

To uninstall, use the "Uninstall game" shortcut within "Graviteam / Achtung Panzer - Kharkov 1943" Start Menu program group.

LIST OF ABBREVIATIONS

A	Army
AI	Artificial Intelligence
AT Aty R	Tank Destroyer Artillery Regiment
AT gun	Anti-tank gun
Aty R	Artillery Regiment
CC	Cavalry Corps
Gds.	Guards
RGK	High Command Reserve
LFS	Lower frontal slope
LMB	Left Mouse Button (left click)
OS	Operation System
RA	Red Army
RD	Rifle Division
RMB	Right Mouse Button (right click)
RR	Rifle Regiment
STBde	Separate Tank Brigade
TA	Tank Army
TC	Tank Corps
TD	Tank Division
UAC	User Account Control

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MAIN MENU

After launching the game you see the Main Menu screen. A row of buttons at the lower part of the screen (Figure 2.1.) allows you to set up and play the game and select a player profile.


Figure 2.1. Main Menu

A) List of operations available
B) Quick battle
C) Quick battle options
D) Resume operation
E) Restart operation
F) Current player profile, selected operation and game version
G) Create a new or select existing player profile
H) Activate list of operations
I) Game options and controls settings
J) View Credits
K) Updates and mods installation and setting utility
L) Quit the game
M) Vehicle encyclopedia

The table in the middle of the screen displays the state of operations: a yellow circle for an available operation, a green one for an operation in progress. Grey circle means operation was finished.

2.1 SELECT OR CREATE A NEW PLAYER

The Player Profile Menu is displayed in Figure 2.2.

Figure 2.2. Player Profile Menu

A) List of existing profiles
B) Keyboard layout icon
C) Delete the selected profile
D) Enable game tutorial
E) Create a new profile

The game automatically creates and activates a profile at first launch, using the profile name of the active Windows user. The profiles are stored in Users\Profiles folder.

2.2 SETTING THE GAME OPTIONS

Figure 2.3 displays an Options Menu. It allows you to change the settings of the game: difficulty and realism levels, video and sound quality, the AI reaction on the game events and the default interface.

Figure 2.3. Game options

A) List of options
B) Automatically detect the computer configuration and set video options accordingly
C) Apply changes
D) Restore defaults
E) Go to controls settings

Here you can also disable ingame tutorial (option 4.6). Screen I contains the general game settings that help to quickly set the balance between quality and performance, select difficulty and realism levels. It is recommended to use these settings.

"Achtung Panzer - Kharkov 1943" is a company-level tactical combat simulation. The game operates in two modes. The turn-based operational mode allows moving platoons around the battle region, and the tactical mode where the battles are fought in selected areas.

Operational mode allows you to move and concentrate your forces, reinforce and replace units, repair and refuel the vehicles.

Tactical mode allows you to engage enemy in combat, capturing the area and destroying enemy vehicles and soldiers. The outcome of tactical combat affects the state of operation.

The battlefields in the game are based on actual terrain and were created using archive documents and photos, along with modern photos and video recording in the field.

The player may operate over large open spaces without any impassable mountains, dense forests and other obstacles. This allows you to choose combat tactics at will.

The battles in the game are based on the historical events, reconstructed after archive documents and memoirs of actual battle participants.

The game takes into account the placement of main components of the vehicles under player or AI control while modeling the damage inflicted. When some technical elements are disabled it may cause a variety of specific effects, such as engine failure, jamming of the turret, track failure, etc. The crew may abandon the vehicle if it is heavily damaged.

Most vehicle types possess differentiated armor. That means the thickness of the armor plates varies depending on the projection type, so the player should take it into account. Armor thickness and its efficiency against various ammos can be seen via special information interface.

3.1 HISTORICAL BACKGROUND

The Kharkov operation, launched on February 2 1943 and lasted until March 3, was spearheaded by the troops of the Voronezh front, supported by 6th Army of the Southwestern front on the south. This operation was codenamed "Star", reflecting the strategic plan to perform a concentric advance on Kharkov that was under German control. The tank and cavalry units were supposed to break through the enemy lines to surround the German Army in Kharkov.

During that winter the Red Army has taken enormous losses, loosing vehicles and personnel in incessant actions in difficult weather conditions. Many units were still engaged in elimination of the German Army Group near Voronezh and could not be regrouped in time. The Kharkov operation put the Voronezh Front to the limits of their exhaustion. Some Rifle Divisions have had only 35-40 hundreds of personnel left. By February 18 there were only 110 tanks in the whole 3rd Tank Army, lacking both fuel and ammunition. The 6th Guards Cavalry Corps has also suffered from insufficient supply, along with the lack of mounts.

Despite all these problems the 40th Army relieved Belgorod and began a Kharkov offensive from the north by February 9, while the 69th Army under Lieutenant General Mikhail Kazakov advanced from the east through Volchansk. 3rd Tank Army under Pavel Rybalko along with the 6th Guards Cavalry Corps crossed River Severskiy Donets, captured Chuguev and advanced towards Kharkov from the southeast. At February 15 the units of 40th Army, 69th Army and 3rd Tank Army assaulted Kharkov, and captured the city the next day.

However, the Soviet troops failed to block the German forces in Kharkov and to fulfill the encircling maneuver. The Germans successfully retreated west. Because of heavy losses, insufficient supplies, and the lack of reinforcements, the Voronezh Front offensive had lost its tempo. The air forces became less active because of the increased distance from the nearest airfields. Nonetheless, the Soviet troops still advanced toward Kharkov.

During the Voronezh-Kharkov Strategic Offensive the Soviet troops had defeated the Army Group B. The 8th Italian and the 2nd Hungarian Armies were nearly completely destroyed; the 2nd German Army had lost most of its vehicles. The enemy had lost 26 divisions and 160 thousand men, 77 thousand killed, including over 49 thousand German soldiers and officers. During 50 days of the offensive Soviet troops advanced 360-520 km. They liberated a significant area, including major cities Kharkov, Kursk, Voronezh and Belgorod. Red Army losses in Voronezh-Kharkov amounted to more than 55 thousand men.

As Soviet troops reached the vicinity of Poltava and Sumy, the operational situation south of Kharkov had rapidly deteriorated. A major German counteroffensive in the South-Western Front area threatened with a breakthrough against flank and back of the Voronezh Front. With the approaching spring slush and without any reinforcements or reliable air support the Red Army has exhausted its offensive capabilities. The High Command decided to cease the offensive operation and dig in at the positions reached by March 3. The Kharkov Defensive Operation had begun. The course of the Operation is shown in Figure 3.1.
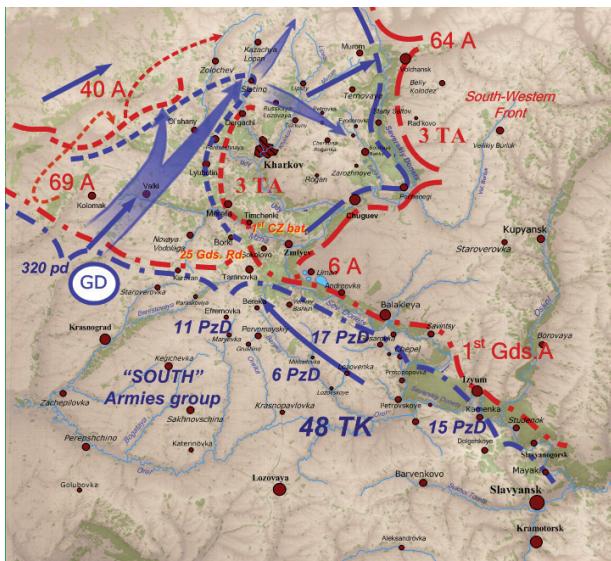
Figure 3.1. The course of the Kharkov Defensive Operation

After the fierce February fighting in the area between River Donets and River Dnieper the Germans advanced against the Voronezh Front, by order of February 28. German forces intended to strike against its southern flank to press the Soviet troops, and then attack the rear from the east. The first German objective was to destroy the Red Army forces in the area of River Berestovaya, mostly the 3rd Tank Army. SS Panzer Corps spearheaded the offensive. After the bloody battle the 3rd TA had taken tremendous losses, loosing ca. 12 thousand soldiers and officers and ca. 60 tanks. The German Command was in a hurry as the Soviet forces were advancing towards Army Detachment Kempf at Poltava and could escape the encirclement.

March 4-25, 1943, the left wing of the Voronezh Front under Colonel General Filipp Golikov (40th and 60th Armies and 3rd TA, with 281.8 thousand men, 1 Tank Corps, 4 Rifle and 5 Separate Tank Brigades, 8 Rifle and 1 Tank Destroyer Divisions, 2 Cavalry Divisions) and the 6th Army of the Southwestern Front under Colonel General Nikolai Vatutin (with 64.1 thousand men, 5 Rifle and 3 Cavalry Divisions, 1 Rifle and 1 Tank Brigades) participated in the Kharkov Strategic Defensive Operation to repulse the counteroffensive of the main attack force of the German Army Group "South" in the Kharkov area.

To avoid a counterattack of the 3rd TA from the south the Division Leibstandarte had attacked the heights over the road from Bereka to Yefimovka, and then turned eastward. Its flanks were protected by Division Totenkopf. Three days later the Leibstandarte forward detachments had reached Polevaya, forcing the Soviet troops to retreat beyond Seversky Donets. In response the Soviet Command started to transfer armored and motorized troops to the Kharkov area to roll up flanks of the 4th Panzer Army. Units of the 2nd Guards Tank Corps were moved to the area, and the units previously advancing towards Army Detachment Kempf and the 2nd Army were transferred to Bogodukhovo.

The German Command had decided to push the Soviet units that were deployed to the south of Kharkov, or cut them off the fords across River Severskiy Donets to the east of Kharkov. This maneuver could give a good opportunity to capture the city.

The fighting south of Kharkov was particularly fierce in the area of the settlements Taranovka (March 2-7) and Sokolovo (March 8-9). The Soviet 25th Gds. Rifle Division along with the 179th Separate Tank Brigade defended the key railroad station Taranovka, blocking the German advance towards Kharkov. The Sokolovo village to the north-east of Taranovka was held by the 1st Czechoslovak Battalion supported by the 131st Artillery Regiment, the 1245th Tank Destroyer Artillery Regiment, the 595th Tank Destroyer Artillery Regiment of the RGK and other units of the 62nd Gds. Rifle Division. Their steadfast defense kept the German 6th Panzer Division from the southern outskirts of Kharkov and thus prevented complete encirclement of the Soviet troops.

The 1st Panzer Corps under Paul Hausser has been given a mission to capture Kharkov. The Germans had attacked from the north and east, breaking into the city. Bitter fighting raged for every building and every street. By March 14 the SS Corps had finally taken over the city, having lost over 11 500 soldiers and officers during the assault. To avoid the encirclement Soviet Command decided to call off the defender troops towards City of Belgorod.

Assaulted by the numerically superior German forces (twice as numerous in men, 11.4 times in tanks, 2.6 times in artillery, 3 times in aircraft), the Soviet troops had to retreat, abandoning Kharkov on March 16 and Belgorod no March 18.

Meanwhile the Grossdeutschland Division has been advancing at the German northern flank. The Soviet Command sent against it mechanized units that successfully stopped the German offensive toward Belgorod. By March 22 the Germans have stopped their advance, because of increasing resistance of the reinforced Soviet troops, with the 64th Army deploying at Severskiy Donets, the 21st Army digging in along the 25-30 kilometer area to the north of Belgorod and the 1st Tank Army concentrating near Oboyan. As a result City of Kursk had been well-protected from the south.

The intensive fighting in the Kharkov area of the Front had ceased by March 25. The Voronezh Front passed over to the defensive, forming a southern edge of the Kursk Salient on Korenevo-Krasnopolye-Gostischevo line and further on along the left bank of the River Severskiy Donets all the way to Volchansk.

Regarding the actions and condition of the SS Corps, Hitler had decided to form another two SS Corpses. However, regarding the new units it was crucially important to resupply the divisions: some of them lost 30 and more percent of the personnel. The Soviet troops lost about 42 thousand soldiers and 322 tanks and SPGs during the battle for Kharkov, along with about 55 thousand soldiers and 1000 tanks and SPGs lost in the course of the earlier Voronezh Front battles.

Having retreated 100-150 kilometer the Voronezh Front troops had stopped the enemy offensive, disrupting the German Command plans to encircle and destroy the Soviet troops in Kharkov and Kursk areas. Both sides started to prepare for a summer campaign. The Kursk Salient was looming ahead.

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OPERATIONAL MODE

Every battle begins with operation planning. In this mode you can move the platoons, attack the enemy, reinforce the units, repair and refuel the vehicles (Figure 4.1). Also you may view the statistics per squads and platoons, as well as for the whole Operation.
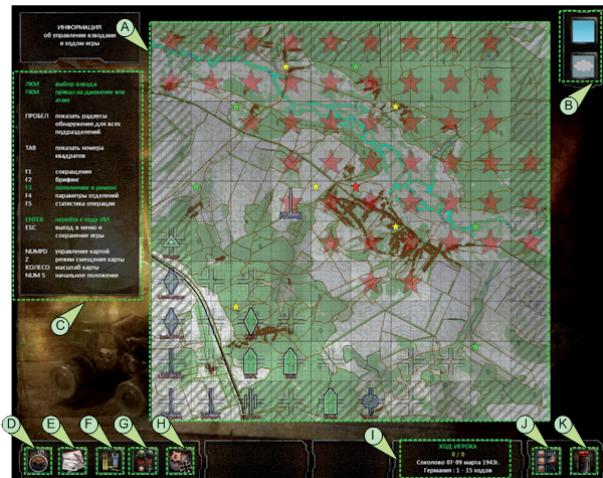
Figure 4.1. Operation mode interface

A) Battle area
B) Weather and time
C) Control Help Panel
D) Next phase [ENTER]
E) Briefing [F2]
F) Reinforce units and repair vehicles [F3]
G) Unit statistics and condition [F4]
H) Operation statistics [F5]
I) Turn phase, victory points (player/AI) and operation description
J) Save and return to the Main Menu
K) Quit the game

Action in this mode is a turn-based and it consists of the following phases:
1) Player turn;
2) AI turn;
3) Tactical battles;
4) Results of the turn (if there were any tactical battles).
5) To proceed to the next phase press [ENTER] or left click the icon.

One turn lasts about 4 hours of real time (depending on operation settings). Some turns begin with a summary of the current situation and some historical background of the events (press [F2] or click the icon). To leave the briefing mode use [ESC] and [ENTER].

The battlefield area consists of 1x1 kilometer squares. The square may be occupied by only one unit at the same time. You can move your units across any squares except the perimeter area. Any square, even the perimeter one, may belong to either of the sides or remain neutral (Table 4.1).

Table 4.1: Square types

Neutral	Perimeter	Under German control	Under Soviet control

A square under control brings 1 victory point each turn to its owner, unless surrounded. Surrounded square brings 1/3 of the victory point. A square is surrounded when it has no connections to the perimeter square of the same side.

The perimeter squares are set by default by the scenery. The perimeter squares do not bring victory points.

Some squares are marked with 'star' signs of different colors. Control of such squares brings you additional victory points. It is very profitable to capture and control these special squares.

Victory points depending on the square types are shown in the Table 4.2.

Table 4.2: Victory points

Square type	Generic	★	★	★
Victory points	1	2	4	8
Victory points while surrounded	1/3	2/3	4/3	8/3

If a marked square is surrounded, it brings three times less victory points. The side which got the most points at the end of an operation wins. A captured enemy keypoint once adds a bonus and multiplies victory points of the square 5 times.

Perimeter squares host the recently arrived units and those moved to the reserve. Move on these squares is forbidden. The units located on such squares cannot participate in tactical battles.

Select any unit to see its visibility range wherein it can spot an enemy. Unspotted enemy units are not displayed, unless this option is disabled. Some kinds of units, such as recon platoons, can only be spotted from neighboring squares.

The basic designations for the objects on the battlefield are displayed in Figure 4.2.

To abort an operation open the Operation Statistics mode ([F5] or the icon and select FINISH button.

ATTENTION! You cannot resume an operation after the FINISH button was selected!

Figure 4.2. Operational phase of combat

1) Platoon in reserve, not available now
2) Allied platoon (the commander's name is given in yellow)
3) Keypoint mark
4) Player's platoon (the commander's name is given in red)
5) Tactical battle area: left click to start the tactical phase
6) Enemy platoon (the commander's name is given in blue), an arrow shows its attack direction

4.1 MOVING TROOPS

You can move and reinforce the units as well as repair and refuel the vehicles during the first phase of the turn. To move a unit, select it by clicking [LMB]. The available target squares are highlighted in green (Figure 4.3). A unit may move once per turn. Keep in mind that only the units in "normal" condition can move, units which are "broken", "routed" or "in reserve" cannot.
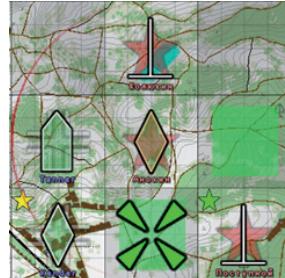

Figure 4.3. Squares available for movement

There is a commander's name under every platoon icon. Red color designates player-controlled units, yellow stands for allied units, and the blue color means an enemy.

The maximum movement range of a unit depends on its operational speed: infantry units can only move for short distances (ca. one square), while motorized and tank units are able to cover much longer distances. The operational speed is also affected by the following factors.

If there is an enemy in the neighboring squares, the movement range is limited to one square.

The operational speed depends on terrain: forests and rivers slow down the movement, roads boost it up a bit;

Presence of another active unit in a square blocks the square completely.

ATTENTION! When a unit has no connection to a perimeter square via the controlled squares, it is considered to be surrounded. Reinforcing, swapping, repairing and refueling of the surrounded units are impossible.

Units that were routed during the tactical phase move randomly. Once such unit reaches an empty ally-controlled square it becomes active again and may be used in following fighting. There is some chance a routed unit may become active on a neutral square, and a very low chance it may happen on an enemy-controlled territory.

The destroyed platoon is marked by a cross. Obviously "destroyed" units cannot take part in action anymore (Figure 4.4).

Figure 4.4. Destroyed platoon signs

To view unit statistics or repair and reinforce it, right click on it. Unit icons are explained in Table 4.3.

Once a platoon had spent several turns on the same square, it considered to be entrench ed. Such a unit is marked with this sign.

The surrounded platoons are marked with this sign. They cannot be reinforced and they cannot repair their vehicles.

Table 4.3: Platoon types

Sign	Description
◈	Tank platoon. It contains medium and light tanks, occasionally SPGs and infantry units as well.
◈	Self-propelled gun battery.
▲	Reconnaissance platoon. In Red Army they tend to lack heavy weapons. These units can move swiftly and stealthily.
⬆	Grenadier platoon mounted on an APC. Each squad has an APC in it. Such a platoon is normally augmented by SPGs or mortars.
⊥	Infantry platoon. Consists of infantry squads augmented by a gun, a machinegun or a mortar.
‖	Artillery regiment battery, armed with regimental or divisional level guns or howitzers.
⊖	Engineering troops. A platoon contains special equipment, such as flamethrower tanks.
▮	HQ platoon.
◈	Self-propelled antitank gun battery, armed with dedicated antitank SPGs.
‖	Tank destroyer artillery battery. Contains antitank or divisional level guns.

4.2 TACTICAL COMBAT

To start a tactical battle, attack an enemy unit in a neighboring square during your turn. Left click on a unit you want to attack with, point the cursor at the enemy unit and click [RMB]. The battlefield area is marked with an icon, with arrows showing the direction of the attack. To begin a battle during a tactical battle phase click [LMB] on any of these signs:

If a unit already attacked or moved during this turn, it won't be able to entrench in the tactical mode: (see icon). If a unit first moved and then attacked, its personnel begins the tactical battle "tired".

When the attacking unit was in turn attacked by an enemy, its personnel suffers from morale drop. A unit which has been under attack cannot move afterwards.

During a tactical battle resolution phase a player can select the order of combats to resolve at will. All "active" units deployed at squares near the battle square are involved in fighting. This does not include units on perimeter squares.

If a unit did not attack or move during one turn, it may dig in during the tactical phase. If it did not move or attack for two or more turns, the unit upgrades trenches. Try to meet the attacking enemy while you are dug in. Concentrate your forces, do not leave solitaire support units such as artillery batteries uncovered.

When a platoon is attacked by armored enemy or takes part in an attack against such units it is supplied with special subcaliber ammunition or an increased amount of armor-piercing shells (if there are any) for the heavy weapons of the platoon.

4.3 REINFORCEMENTS AND REPAIR

During the first phase of a turn you can replace personnel, repair and refuel vehicles, and swap squads between platoons. This is done via the Unit Management Screen (Figure 4.5). Press [F3] key or click icon to open it.

FIGURE 4.5. UNIT MANAGEMENT SCREEN

A) Leave the Unit Management Screen
B) Unit list (the broken platoons are marked red, the yellow ones are unavailable for management, the green ones had arrived from the reserves)
C) List of squads in the selected platoon
D) Replace all broken squads automatically
E) Reinforce, refuel and resupply the selected squad

F) Reinforce, refuel and resupply all units automatically

G) Swap the selected squad with one in reserves

H) A star symbol designates historical squads. These squads cannot be swapped

I) Heavy weapons status. Weapons that cannot be repaired are marked red

J) Personnel in the squad

K) Fuel and ammo available

L) A question mark symbol designates squads which are not historically correct for the ongoing operation

M) Recourses for the reinforcement, refuel and resupply (may be the same for several platoons)

N) List of squads in reserves

In the upper left part of the screen there is a list with all platoons of the player. The broken platoons are marked red. Below it, in the lower left, there is a list of squads in reserves. A panel on the right lists the squads inside the selected platoon.

Left click a squad on the list at the left side of the screen to swap it. Then select a replacement squad in the list of reserves. Finally, click again on either of these two squads to swap them. You can also use a menu button to accomplish the change.

Units and vehicles which in reality did not take part in the operation are symbolized with a question mark. To remove such units from the game select the respective option in the Options Menu. Historical squads which cannot be swapped until broken are marked with a star sign. Generally it concerns commanders of the platoons and companies.

You can swap only the squads of the same type, i.e. a commander for another commander, artillery unit for an artillery units and machineguns, tanks for tanks.

Vehicle repairs demand man-hours of the maintenance brigade. This information is displayed in the lowest row of the table. Double-click on a cell in the Heavy Weapons Condition Column to start repairs. The work starts only if there are enough man-hours left.

ATTENTION! You cannot use the vehicles under maintenance in tactical battles until the repairs are complete!

In order to reinforce a unit, double-click on a cell in the Personnel Losses Column. A squad is reinforced if there are some free personnel to employ. The amount of personnel available is displayed in the lowest row of the table. The unit receiving reinforcement looses its experience accordingly.

Refueling and resupply of the ammo are made in a similar way.

ATTENTION! You cannot reinforce, repair or refuel the encircled units. Reinforcements and fuel and ammo supplies are restocked twice per day, once per three turns. Units in reserve may still be repaired.

ATTENTION! Several platoons may share a common pool of reinforcements and supplies. Always begin repairs and reinforcements from the most important units.

4.4 STATISTICS

To view the statistics for all the squads and platoons, press [F4] or use this icon (Figure 4.6). To see the data for the entire operation, press [F5] key or click this icon: (Figure 4.7).

All values on the Statistic Screens are shown as two numbers separated with a hyphen. The first number is a general value; the second one shows stats for the last tactical combat.

Figure 4.6. Unit statistics

The statistics display personnel and vehicle losses, number of enemies destroyed, and enemy vehicles captured. Awards earned by the squad's soldiers are shown as well. The current condition of the troops can also be seen here. The Ammo Column (Figure 4.6) displays a relative cost of resupply in per cent from a single general issue ammunition unit.

Figure 4.7. Operation statistics

The second column displays the status of platoons (active to destroyed), the third column - victory points awarded. Next there stays the amount of losses caused and taken.

You can abort an operation by clicking the "FINISH" button.

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TACTICAL MODE

5.1 DEPLOYING TROOPS

After loading the tactical phase the game enters the unit deployment mode. An area occupied by the enemy troops is highlighted blue, a zone colored red is held by the allied units you cannot deploy. Areas colored white are unavailable for deployment for both sides. The deployment interface is shown in Figure 5.1.

The squares to deploy the troops on consist of 32x32 meter cells. Each of these can only be occupied by a single squad or a vehicle.

Each cell is designated with two squares of various colors, an inner and an outer one. The outer square displays the quality of the cell for the deployment. A punctured line (1) means the troops cannot entrench in this cell; a solid line (2) signifies the troops can dig in. The color of the outer square shows how suitable the cell is for deployment:

1. 2.

Green: An excellent place for the deployment
Yellow: A decent deployment place, however, it is not quite suitable for artillery or machineguns
Orange: A cell is suitable mainly for infantry units
Red: Only infantry units can use this cell (e.g. there are buildings on this cell)

The inner square signifies the camouflaging qualities of the cell: (3). If there is no inner square, the cell provides no cover for a unit deployed: (4)

3. 4.

The screening level is designated by color as follows:
Green: An excellent cover, suitable for ambushing enemy
Yellow: Suitable for infantry units and machineguns to hide in
Orange, Red: The cell provides slight cover

To deploy the units select those you want to turn or rotate, choose the necessary mode on the Deployment Panel and select their new placement and direction with [RMB]. A center of the selected squads moves to indicated location, the rest of the selected units maintain their relative position to the center if possible.

Units that cannot be moved remain where they were. Using special buttons on the Deployment Panel the player may also dismount troops.

The deployment mode interface is displayed in Figure 5.1.

FIGURE 5.1. DEPLOYMENT MODE INTERFACE

A) Quick unit selection panel
B) Minimap and the map control panel
C) Unit selection filters by type
D) The selected unit
E) The control panel (time, exit game, information)
F) Selected unit information panel, displaying spotting range, ammo, armor level, status, morale, efficiency, protection and so on
G) Switch the information panel to the numeric display of data
H) Deployment control panel
I) Finish deployment and begin battle [ENTER]
J) Squad movement mode [M]
K) Squad rotation mode [R]
L) Mount infantry on vehicles [E]
M) Dismount from vehicles [L]
N) Dig in and defend [T]
O) Block the selected squads
P) Reorder the platoon's squads around single selected squad

You may rotate units during their movement by clicking and holding [RMB] while dragging a line into a required direction.

ATTENTION! Select one squad and hold the [SHIFT] key to make the unit to move after the mouse cursor. Release [SHIFT] to drop the squad.

The squads within each platoon can be deployed in cells controlled by the player and not occupied by the allied AI. These cells must neighbor a cell with their mother platoon.

To quickly find and to mover to a unit, click [RMB] on the squad symbol on the Unit Selection Panel (right column).

To order the units to dig in during deployment phase, select the units and press the [T] key, or click the (1) button on the Deployment Panel. The units will be marked with the sign 'squad on defensive': (2). Select this button again to cancel the defensive mode. When the defense icon is marked red: (3), this means digging in is unavailable for a variety of reasons such as: the cell is unsuitable for digging in, the cell is occupied by buildings, or the unit had been moving during the operational phase and has no time to entrench. In this case the soldiers occupy whatever positions are suitable for defense, such as buildings or nearby trenches.

1. 2. 3.
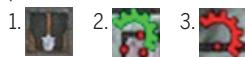
Do not forget to specify the correct directions, so that the fire arcs for troopers in trenches and in buildings would allow placing fire in all needed directions. This is particularly important for the towed guns, machineguns and self-propelled artillery.

Deploy the entrenched guns so that their fire arc was not blocked by mounds and vegetation.

If a platoon has not moved or attacked for several operational phase turns, it builds some advanced fortifications. Its guns, self-propelled guns and mortars are entrenched deeper, so that they are well-protected not only from the front but from the flanks as well. The infantry digs trench lines instead of plain dugouts. Infantry squads dig in on the sides of gun, machinegun and self-propelled gun positions, covering their flanks.

5.2 THE ORDERS SYSTEM

All the orders you can give to your troops are divided into three groups (Figure 5.2):

1) Movement orders – located at the upper left of the orders panel and used to assign the movement target and direction.

Attack: Used to attack enemy positions. In this mode the infantry and vehicles maneuver depending on enemy actions: close approach, retreat, surround from the flanks.

Movement: This mode ensures fastest movement.

Defense: Units in this mode move without maintaining their formation and at the endpoint prepare defensive in any available places, such as dugouts, houses, foliage and craters. To set a fire direction press and [**RMB**]. Otherwise, the unit takes the most suitable points.

The movement orders are the only way to make the selected units move about the battlefield. You can further adjust any movement orders via a panel of modifiers (bottom left):

Formation type: Line, column, no formation
**Formation geometry:** Formation thickness and the number of lines
Movement type Along the roads, stealthily, quickly, tanks ahead

2) Firing orders – located at the upper right of the Orders Panel. Used to set the priorities and limits on opening fire.

3) Instant orders – located at the bottom right of the orders panel. Used to cancel previous orders and perform additional maneuvers such as mount or dismount.

Figure 5.2. Expanded orders panel

	Move in the specified direction [**M**]		Fire at specified area [**G**]
	Attack specified position [**B**]		Set priority targets [**T**]
	Go on defense [**N**]		Mount on vehicles [**E**]
	Set a fire arc or a turning direction [**V**]		Dismount from vehicles [**L**]
	Cancel orders [**X**]		

Formation type			Tanks ahead of formation
Formation thickness			Move along roads
Lines in formation			Move stealthily
Move quickly			

The modifiers for each of the three movement orders are set individually and are maintained throughout the tactical phase.

 "Move along roads" movement modifier orders units to stick to the roads. It increases the speed, the foot soldiers get less exhausted and the vehicles have very low chances of getting stuck. However, troops moving this way risk getting into an ambush.

 "Tanks ahead" movement modifier orders the tanks (if there are any) to move ahead of the infantry line or column, which is ideal for assaulting the enemy infantry defensive positions.

Stealthy movement modifier orders the squads to keep a low profile, sticking to gullies and foliage, crawling and holding fire when possible.

Quick movement modifier orders troops to move as fast as possible. They won't shoot much in this mode. Vehicles in this mode turn on their lights at night that vastly increases their speed.

Formation modifiers order the troops to move in a line (or an echelon), a column or without a formation. All the units in a formation line up at the starting area and try to maintain the formation on the move, as much as terrain and the enemy actions allow. The column formation is highly vulnerable to enemy fire.

With a line formation the direction set during ordering designates the formation alignment. So if you set a direction of 45 degrees counterclockwise to the movement direction the formation moves in left echelon (Figure 5.3).

Figure 5.3. Echelon movement

The firing orders are cancelled automatically once a movement order is given. An order to fire at area allows you to set a fire line and fire along it (click and hold [RMB]) (Figure 5.4) as long as terrain and fire range permit it. To cancel fire at area, click [RMB] or the button. The artillery fires fragmentation and shrapnel shells, with shrapnel for remote detonation.

Figure 5.4. Setting an area to fire upon

"Artillery only" button is located on the quick selection panel. Using it you can quickly select all artillery under your control to concentrate its fire on a given area.

"Set priority targets" [T] permits you to specify firing priorities for the selected units. This is recommendatory order. When the targets cannot be hit or are located outside the visual or firing range, they cannot be targeted. Click [RMB] on "the icon" to cancel the priorities.

Setting a fire arc [V] allows you to designate a sector and range to fire (Figure 5.5). Enemies at above 100 meters away from the sector won't be targeted. This order is useful in setting an ambush, with units holding their fire until the last second. A designated arc can be cancelled with a respective button. This order can also be used to turn vehicles and guns in a given direction, along the arc's center axis. When the arc's angle is below 15 degrees, the button only turns a unit and does not actually set a fire arc (the arc is highlighted red). To cancel a fire arc, click [RMB] at "the icon".

Display command ranges, current orders and targets function is triggered with the [SPACE] key or the button "the icon". It is turned off by default. When this mode is on, the blue lines display unit movement directions and the orange ones designate current firing targets.

To evaluate fire efficiency enable dynamic damage display with the [F8] key or the button.

Figure 5.5. Setting a fire arc

When the game is just launched a simple orders panel (Figure 5.6) is active by default. This panel allows you to give basic orders without setting the modifiers. To switch to an extended panel, click the button. Default attack orders imply moving in a line or an echelon with tanks ahead. Default movement order is 'to move along roads, in column formation, quickly'. Default defense order is 'without formation'.

Figure 5.6. Simple orders panel

To set a sequence of orders, hold [SHIFT] while setting waypoints.

5.3 CAPTURING AND HOLDING TERRITORY

A key objective for both opponents is to capture and hold territory (squares). After the tactical phase the squares under control of the each side are counted. When a square was successfully attacked, a platoon that initiated the attack moves over the square during the operation phase. If a platoon under attack has lost the battle, this platoon becomes "routed", i.e. it is out of control and out of battle for a while (for more details please see Operation Mode Section).

After the forced retreat all squares are captured by the advancing enemy. The following rules are used to define the square control:

Superiority: A square is controlled by the player, whose total efficiency in the square is higher. Total efficiency is derived from the personnel quantity, vehicle status, morale, and types of detachments.

Keypoint control: Every keypoint on a square increases the total efficiency of troops controlling the square. Automatic points, marked with a small banner, increase the efficiency 1.2-2 times. 'Historical' points, marked with a large banner, increase it 2-8 times. Therefore the side controlling the keypoints can hold a square with relatively small number of forces.

To capture a keypoint, place a commander of a platoon or a company, a vehicle or a gun in immediate vicinity of it.

ATTENTION! If there are no troops in your square with a keypoint, any enemy unit entering the square automatically captures both the keypoint and the square!

5.4 TACTICS

In the tactical mode a player controls infantry squads and units of equipment. Enemy vehicles and units are designated with the blue counters, player's and allied units with the red. Small dots are standing for soldiers, horizontal line for a gun, vertical line stands for a mortar or a machinegun. Triangles stand for tanks and self-propelled artillery, rectangles for APCs. Counters display mode is triggered by [F6] key or the button (1) Click [RMB] on the (1) button to enable the individual counters mode (2) (Figure 5.7).

1.   2.

Figure 5.7. Unit counters

A player's primary objective is to hold territory by controlling keypoints marked with banners and to destroy enemy forces with minimal losses of his own.

Basic rules of battle:
1) Set a clear and accessible goal for every operation
2) Use clear and simple battle plans
3) Concentrate your forces in the right place at right time
4) Make your enemy to have worst position possible
5) Attack your enemy when he is not ready for defensive
6) Take initiative
7) Find the most the most efficient way to use your forces

Set up the ambushes on the expected enemy routes. Protect the artillery and mortar positions with infantry units. Deploy recon units at forward positions to spot the enemy forces on time.

When deployed among infantry, the platoon and company

commanders prevent panic and increase the efficiency of defense. Place commanders a bit behind the lines of defense so that the infantry squads fall inside their range of command. Presence of a commander helps to press an offensive even against strong enemy resistance.

All commanders have two attributes: range of command and proficiency level. The range of command defines a maximum distance where a commander can still control the troops. Level defines the efficiency of his command.

The level is designated by following colors:

Green: Top level, the troops under command are nearly invulnerable to panic and very active during the battle
Yellow: Average level, the troops under command can hold their fire and panic if under heavy fire
Red, black: Low level, the troops under command tend to panic and surrender if under fire

Therefore units inside the range of command do not suffer from panic even when under heavy fire, they do not surrender and do not abandon their positions even if an enemy approaches or their weapons are broken. If a commander has been wounded, his level and range of command decreases. To view the command ranges and levels use the [SPACE] or the button.

Use the artillery spotters to barrage the enemy defenses and suppress the fire positions before attacking, and to break an enemy assault.

Use flares to spot the enemy activity during the night.

To set priority targets, select them and press [T] or click on the button. The designated targets are marked with crosses.

5.4.1 AIR AND ARTILLERY SPOTTERS

There are air and artillery fire spotters in some units. There might be a special squad or commanders of platoons and companies with some artillery are used for this propose. These units can call for support fire and designate targets for artillery batteries positioned far away from the battle area.

To designate targets select the required unit on the air and artillery Control Panel (Figure 5.8), click an artillery barrage button and set the starting and ending points for an artillery plan. A battery prepares to fire, and after several aiming rounds begins a barrage.

When a single spot is set, a battery fires at the area around the spot.
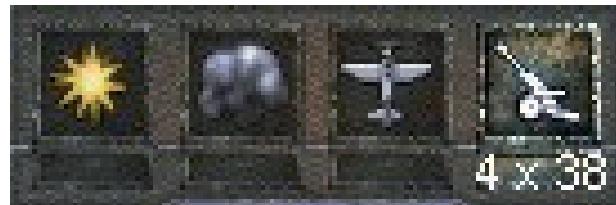
Figure 5.8. Air and artillery spotters' panel

In order to stop a barrage, click the corresponding button again. It takes less time for a battery to prepare for repeated barrages. To view battery info, place cursor over the artillery barrage icon. So you can see number and type of guns, an amount of shells per one gun and the current status of the battery.

During the nighttime the artillery spotters can launch flares. The launch and targeting is activated the same way.

ATTENTION! It is necessary to have both the starting and ending points of an artillery plan in the spotter's visual range for the barrage to be precise. Place the spotters so that they could see their targets.

Air spotters can call for a flight of ground attack aircraft or dive bombers. Air control is organized on the same principles as artillery control. Keep in mind that it takes a long time for aircraft to reach its target. You can find more information on the aircraft condition by moving cursor to the aircraft icon.

Aircraft is unavailable during nighttime or bad weather conditions!

If a unit of artillery or air spotters is destroyed by the enemy, calling for artillery or air support will be unavailable.

5.4.2 FIRING FROM COVERED POSITIONS

In order to fire from covered positions select the machineguns or the guns able to shoot fragmentation or shrapnel rounds. You can quickly select such guns with the button (1) on the Unit Selection Panel. Select the "Fire on the area" order on the orders panel [G] (2), and set starting and ending points of a line to fire at by clicking and holding [RMB]. The units place fire on an area even if it is out of their sight, as long as it is within the fire range. Try to position guns for this purpose on heights.

1. 2.

ATTENTION! This firing mode quickly exhausts the ammo supplies!

5.5 UNIT STATISTICS
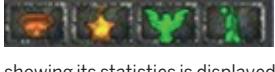
When a single squad, a vehicle or a gun is selected, an information panel showing its statistics is displayed on the bottom of the screen. It shows the squad name and commander's name, its affiliation to a side, its technical data, experience, morale and physical condition (Figure 5.9).

Figure 5.9. Squad statistics

When the cursor is hovering over the panel's elements, the tooltips display the amount of active, dead and wounded personnel (1), the status of heavy weapons (2), the relative amount of ammo and fuel (3).

1. 2. 3.

The intensity of enemy fire is shown at an icon .

The buttons (1) and (2) open the diagrams of penetration and armor for the heavy weapons. The button (3) displays the line of sight and the line of fire for heavy weapons or a unit commander (Figure 5.10).

1. 2. 3.

ATTENTION! A direct line of sight/fire is designated with green color, an absence of direct line with red. Maximum range is highlighted bright orange when direct line isn't blocked.

Hovering cursor over an enemy vehicle or a gun while in LOS/LOF display mode shows a chance to hit it and the penetration chance for a selected heavy weapon, a squad or a vehicle.

The button allows you to switch to numerical display of the attributes.

The elements display a unit's efficiency against soft targets and hard targets, and its relative level of armor respectively.

The icons are coded with the following colors:
Blue: Best value possible
Green: Good value
Yellow: Average value
Orange: Low value
Red: Lowest value, signifies complete destruction of a squad or a vehicle
Grey: Not applicable, as in 'no heavy weapons and armor present', or 'no fuel required'

Figure 5.10. Checking line of fire

5.5.1 ARMOR PENETRATION DIAGRAMS

Penetration diagrams (Figure 5.11) are used to find a gun penetration rate. This information shows relative penetration level of the missiles depending on range and enemy armor type. The diagrams are activated by the buttons (the icon) and (the icon) on the Unit Statistics Panel. If a unit has a target selected, the diagrams display this target or its weapon automatically.

The diagram's horizontal lines show the selected vehicle's armor levels (in millimeters) for its different parts and from different directions. The broken lines designate armor penetration levels for various ammunition of the selected weapon. The points where these lines cross are marked with vertical lines signifying the distance beyond which a weapon is ineffective from a given direction.

The buttons allow choosing a part of a vehicle to build a diagram for: the lower hull, the upper hull (or the superstructure) and the turret.

Figure 5.11 shows that the Pak 35/36 37 mm antitank gun firing a PzGr.40 subcaliber round penetrates lower frontal slope of the T-60 mod. 1941 tank at 30 degrees angle on the range of up to 450 meters with a chance approaching 50 per cent. A PzGr.39 round penetrates the back of the hull from the range up to 780 meters, while the bottom is penetrated at any effective range.

The penetration values are given for the 30 degrees deviation from the surface normal. The "German system" is used for information on German guns and the "Soviet system" for Soviet ones. The data may more or less deviate from values actually used for ingame computing and it should be regarded as general historical information.

The diagrams display only the approximate ranges, without taking armor quality into account. These ranges may vary dew to a multitude of factors.
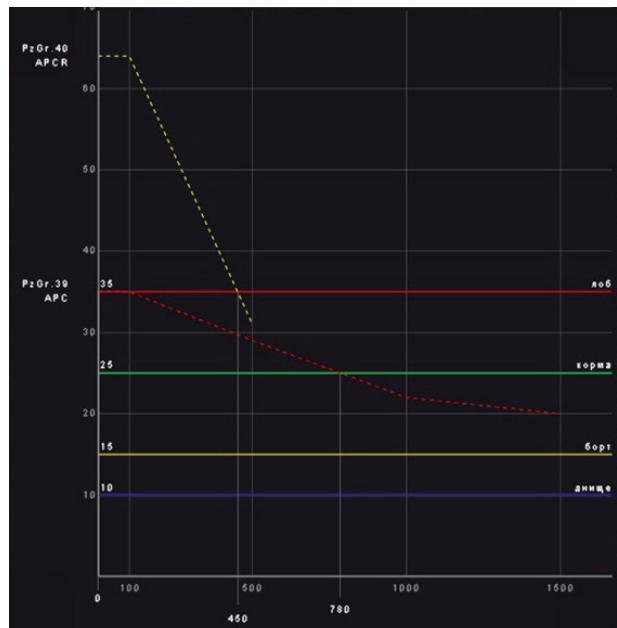

Figure 5.11. Armor penetration diagram for the T-60 mod.1941 tank and the Pak 35/36 antitank gun.

5.6 ENDING TACTICAL PHASE

The tactical phase is over if one of the following conditions is met:
1) One of the sides had retreated.
2) Both sides agreed to a ceasefire.
3) The phase lasts more than 60 minutes (30 or 120 minutes depending on settings).

To retreat, click the (1) button on the bottom left panel to unlock the tactical phase termination button (2). This button ends the tactical phase immediately, and your enemy gets control over the contested squares. Your platoons become routed and stay out of command for a while.

1. 2.

To request a ceasefire, click on the button and wait until the enemy accepts your offer. If the enemy offered a ceasefire, this button is highlighted green. After the ceasefire the territory is be controlled depending on the troop positions at the moment when the ceasefire begins. AI offers a ceasefire when its troops' total efficiency falls below 25 per cent of its original value, or when it does not plan any offensive actions. In the latter case it may offer a ceasefire at the very beginning of the tactical phase. A ceasefire request is displayed on the Events Panel above the Orders Panel.

Once the tactical phase is over the statistics mode displays its outcome:

Blue: The territory controlled by an enemy
Red: The territory controlled by the player or allies
White: Neutral territory

Captured territory is shown if the keypoint display mode is turned on. Press [F5] or click the button to enable it.

Abandoned vehicles on the enemy-controlled territory are considered lost, while those abandoned on the allied territory are reclaimed. Vehicles abandoned on neutral territory have a 50 per cent chance to be reclaimed.

5.7 STATISTICS

The statistics screen allows you to see the status of your units as well as the enemy troops. A table on the bottom right displays the condition of every squad and crew. Personnel losses and kills by unit are shown as tooltips.

The statistics table is shown in Figure 5.12.

Figure 5.12. Statistics table

Side flags designate platoons, unit counters stand for squads. The numbers display the number of soldiers in a squad or a crew (active – lost). Eliminated units are written in red. The rightmost column indicates the status of heavy weapons.

To go to selected unit, press [Ctrl+F], click the button or click [LMB] on the unit's name in the table.

When you select a detachment armed with heavies, this vehicles display the vectors of shells and bullets it had been hit with. Every hit mark shows the firing range, shell type, hitting angle and the damage caused.

The ammunition is color-coded the following way:

light blue: Shrapnel
blue: Fragmentation
yellow: Subcaliber
green: Cumulative
red: Armorpiercing
white: Incendiary

The damage is coded as follows:

LT: Lights
ST: Sights
TK: Tracks
EN: Engine
AM: Ammunition
TN: Transmission
RD: Radio
FT: Fuel tanks
GM: Gun mechanism
TM: Turret rotation mechanism
WN: Gun, machinegun
AC: Accumulator
*: Other equipment, a fire

Crewmember hits are coded as follows:

dr: Driver
gn: Gunner
cm: Commander
ld: Loader
mg: Machinegunner
2l: Assistant loader

5.8 TACTICAL MAP

The tactical map is shown at the upper left [F9] (1). Press [F10] (2) to view it in detail (Figure 5.13), use [Num+] and [Num-] to change zoom level. The map shows the keypoints as colored flags, red for player-controlled, blue for enemy-controlled and white for neutral. Red dots stay for player units, blue dots for the enemy units.

1. 2.
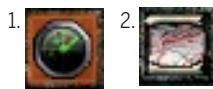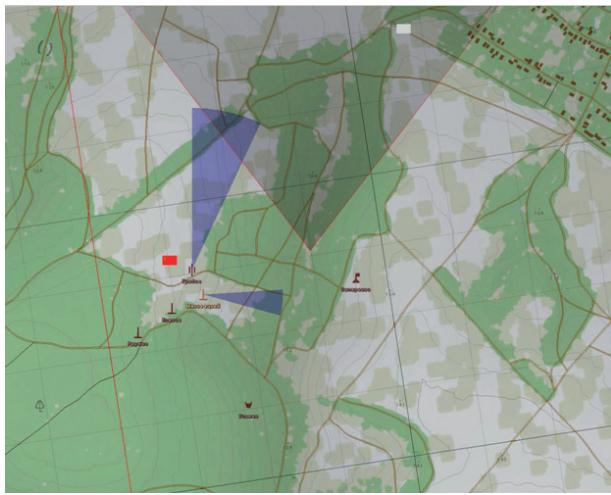
Figure 5.13. The tactical map with unit fire arcs

The map displays heights with the contour lines and features roads, buildings, forests, bushes and other terrain objects.

When the squad display mode is enabled [F6] and fire arcs are set for the squads they are shown in blue.

5.8.1 MAP KEY

Machinegun (DP, MG-34)		Self-propelled anti-air gun	
Heavy machinegun (Maxim)			
Rocket propelled grenade (GzB 39)		Fire position of an artillery battery, of mortars	
Anti-air machinegun			
Light flamethrower (FmW-41)		Tank, battalion commander's tank, amphibious tank, flamethrower tank	
Antitank gun (common symbol), below 85 mm, below 100 mm		APC	
Gun (common symbol), below 100 mm, below 152 mm		Truck, motorcycle	
Howitzer (common symbol), below 122 mm, below 152 mm		Trench, observation post, vehicle dugout	
Self-propelled howitzer, below 122 mm		Blindage, escarps	
Anti-air gun (common symbol), small caliber, medium caliber		Hidden wire hedge	
MLRS (common symbol), medium caliber		Antitank ditch, dragon's teeth	
Mortar (common symbol), small caliber, medium caliber, large caliber		Wire hedge (lines designate number of rows)	
		Czech hedgehogs	
		Minefields (antipersonnel, antitank)	

6
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ADDITIONAL OPTIONS

6.1 QUICK BATTLE EDITOR

A special quick battle editor is included in the game. It allows you to set combat options step by step and launch the battle. The battle settings are saved for each profile automatically. The basic options such as player's side, battle type, and condition of the troops are combined into a single table. The steps to set up a battle are shown in Table 6.1.

Having launched a quick battle you can go to the reinforcements menu [F3] and swap default squads and vehicles to the ones you need. This can be done for player's and enemy troops alike.

The Operation phase in quick battle mode does not allow moving or attacking enemy units.

Table 6.1: Quick battle mode troops deployment

1

The last phase of setting up a quick battle is battlefield selection and deployment of troops.

2

Click [LMB] to select a square the battle will be centered on.

3

The squares to deploy troops taking part in a battle are highlighted green. In order to start a battle you should place at least one platoon on either side. Click [LMB] on green squares to deploy.

4
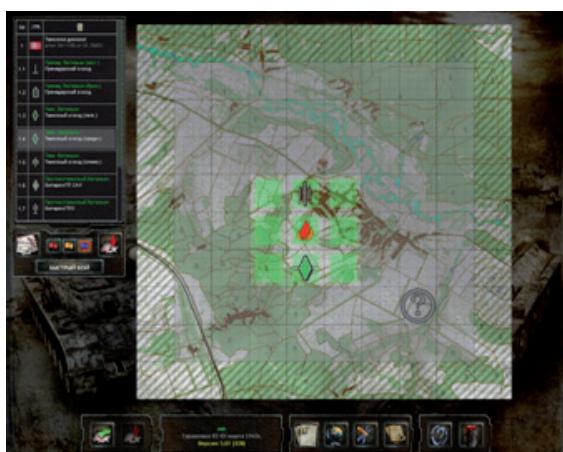
Click [RMB] to delete a deployed platoon or to change the side controlling a square. Once all platoons are placed, the "QUICK BATTLE" button goes active. Click it to go to the operation phase of the combat.

5
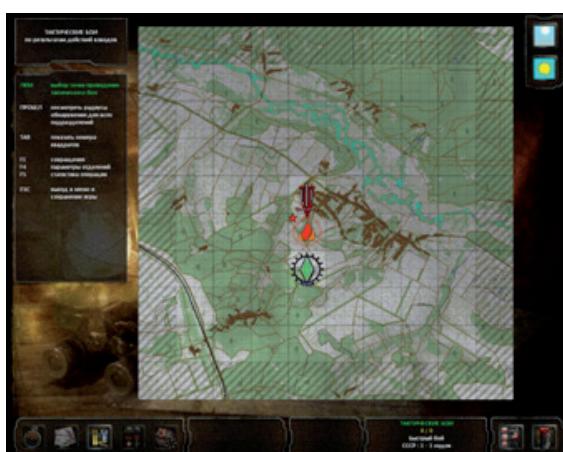
Operation phase of the combat. Click [RMB] on a platoon of any side to set the squads within it. Once you finished setting up the battle, click [LMB] on a square where the combat takes place, and the battle will begin!

6.2 INSTALLING UPDATES AND MODIFICATIONS

The game features a built-in utility to streamline the installation of updates, patches and mods. This utility is activated with the button in Main Menu. Its interface is shown in Figure 6.1.
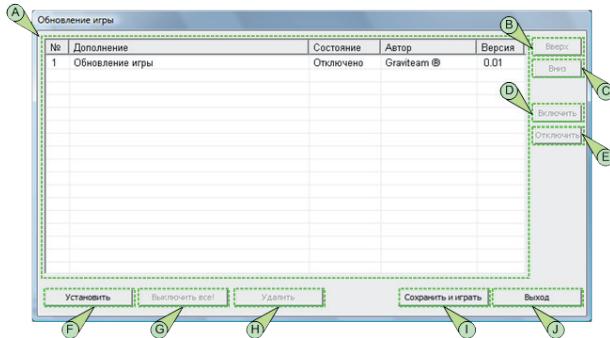
Figure 6.1. Mod and update installation utility

A) The list of installed updates and patches, including their authors, versions and status

B) Increase priority of the selected update

C) Decrease priority of the selected update

D) Enable the selected update

E) Disable the selected update

F) Install new patch or update

G) Disable all updates

H) Remove the selected update

I) Apply changes and return to the game

J) Cancel and return to the game

Changes to resources made by the updates with higher priority get advantage over changes by the updates of lower priority. The main game's resources have minimal priority. You can use several updates changing different resources or a common pool of resources at once.

If after an updating the game it does not function correctly, disable this update. Every update is installed into its own folder and its resources do not overwrite resources of the main game or other updates.

The updates are installed into the "data\k43t\<update name>" folder in the game's root folder. To install an update the active user must have write access rights for this folder.

ATTENTION! The "data\k43t\dev_updates" folder in the root of the game is reserved for the updates and patches from the developers. It is not recommended to make updates that are installed into this folder!

ATTENTION! The system updates from the developers cannot be enabled and disabled, only removed.

ATTENTION! It is recommended to disable an update and relaunch the utility prior to removing it.

6.3 BINOCULARS MODE

The Binoculars Mode allows you to zoom in on a terrain fragment and watch it in detail. Use the [TAB] key or the button to activate it. Its functions are described below.

Assume you need to look at the area highlighted with a rectangle in Figure 6.2.

Figure 6.2. Area to zoom

Press and hold the [TAB] key. You'll see a crosshairs inside a rectangle in the center of the screen. It designates the center and borders of zooming area. (Figure 6.3.). Point the crosshairs at the area you want to see closer by rotating the camera (Figure 6.4.).
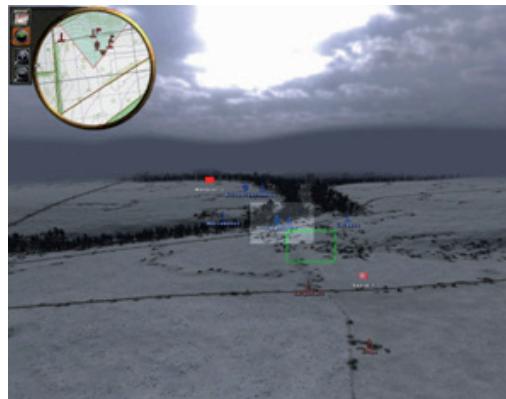

Figure 6.3. The center and borders of zooming

Figure 6.4. Aligning zooming markers to the target area.

Having pointed the crosshairs, release the [TAB] key to zoom in the targeted area (Figure 6.5).

Figure 6.5. Zoomed in area.

The camera in zooming mode is controlled just like in normal mode, but its movement speed is reduced. The magnification is 8x. Press [TAB] again to leave the "Binoculars" mode.

6.4 LOCKING CAMERA ON UNITS AND VEHICLES

To lock camera on a unit, select a squad or a vehicle and press the [Q] key or click the button. With this command camera follows the designated unit.

To change the direction and viewing distance, use the camera control keys: Numpad keys or Arrow keys and [PageUp, PageDown] to change height, [W, A, S, D] keys and the mouse wheel to zoom and viewing height. You can rotate the camera around unit by holding middle mouse button.

Press [Num5] to return camera to default position. To cancel unit lock, press [Q] again.

ATTENTION! You cannot activate the "Binoculars" mode (see section 6.3) while in camera locking mode.

6.5 MOUNTING THE VEHICLES

To make infantry mount the vehicles select the infantry squads and the vehicles together and press [E] or click the icon. After some time the soldiers take their position on the vehicles. Keep in mind they shouldn't be more than 100 meters apart.

The heavy tanks have enough place for 16 men, medium tanks and self-propelled guns a suited for 12, light tanks may only carry 8. An average infantry squad includes 10 men.

6.6 MOVING GUNS AND MACHINEGUNS

As you move guns and machineguns around the amount of ammunition available may reduce. The speed of resupply ammunition depends on a distance to ammo boxes. While maintaining intense fire the crew can resupply its ammo stock from the boxes belonging to other guns.

ATTENTION! Moving guns and machineguns exhausts their crews, decreasing their fire intensity.

6.7 VEHICLE ENCYCLOPEDIA

The Encyclopedia contains attributes and abilities of the vehicles included in the game. Click the button in Main Menu to view it. The Encyclopedia interface is displayed in Figure 6.6.

Figure 6.6. Encyclopedia interface

A) Vehicles filter
B) The list of vehicles
C) Selected vehicle
D) Camera control panel
E) The comparative table of vehicle statistics
F) Data on the selected vehicle
G) Toggle the vehicle's camouflage
H) Penetration and protection diagrams
I) The vehicle's active slot
J) Selected vehicles panel
K) Back to the Main Menu
L) Quit the game

In order to select a vehicle, assign it to a slot on the selected vehicles panel (J) by clicking the slot with [LMB] (it is highlighted green) then clicking on the vehicle in the list (B). To free up a slot, click [RMB] on it. You can display up to 4 vehicles at once.

To compare the vehicles' parameters, select several vehicles of the same type and click the button. It opens a comparative table with the data on all selected vehicles (Figure 6.7).

Figure 6.7. The comparative table

The table lists a variety of data on the vehicles, such as the years of production and service, numbers produced, armor values, weapons and armament, crew size, engine and movement type.

6.8 MISCELLANEOUS

6.8.1 MAKING SCREENSHOTS

Press [F12] to capture a screenshot. The pictures are stored in the "users\ scrshots" folder inside the root folder of the game. Screenshots are stored in .jpeg format.

To make a tactical mode screenshot without interface elements on it, press [Ctrl+Back] to hide the interface. Then make a screenshot with [F12], and restore the interface using [Ctrl+Back] again.

6.8.2 CONTROLLING THE FLOW OF THE GAME

Press [ENTER] (1) to begin the game. Press [ENTER] again or click (2) to pause it. Press [F11] and [Ctrl+F11] or click (3) in order to accelerate time 2 and 4 times respectively.

1.   2.   3.

The clock shows the battlefield time. Click [LMB] on it to see time remaining until the end of a combat.

Q: Why cannot I swap an infantry squad for a tank? I wish to wage war with armored units alone!

A: The game contains some elements of realism. The units are swapped according to historical reality, it's not like it's a currency exchange. ;)

Q: Why some squads cannot even be swapped for another of the same type?

A: Squads marked with a star symbol are historical and cannot be replaced.

Q: Why a squad keeps moving across wilderness after I changed the movement mode to "Move along roads"?

A: The formation and movement modifiers take effect only when a new movement order is given.

Q: Why the movement modifiers do not change to the ones I had before when I pick a squad?

A: The movement and formation modifiers are assigned to an order, not to individual troops. Any changes in modifiers persist for all units.

Q: Enemy guns and APCs drive and fire without a crew, where is it?

A: A crew hidden behind a gun shield or inside a vehicle can only be seen at a very close range comparing to vehicle itself, if seen at all. That's why it is not displayed.

Q: Why the sounds of explosions and gunshots aren't synchronized to flashes?

A: The game models the sound speed of ~330 m/s, therefore the flash is seen first and the sound wave comes later.

Q: During a battle I hit two German "Marders". Next battle I looked through the stats on kills and the "Marders" became Stug-III! How could it be?!

A: The number of the destroyed vehicle types is limited, so Pz-IV "becomes" Pz-III, all German APCs "turn into" Sdkfz251/1, and German and Soviet guns to Pak-38 and ZIS-3 respectively.

Q: What is this mess of circles and lines on screen??!

A: The circles display the range and level of command; the units inside a circle are under a commander's guidance. They panic less and are less inclined to surrender. The blue lines show the units' movement direction, orange lines designate fire direction.

Q: How to make vehicles to turn on lights?

A: You have to enable the quick movement modifier and order them to move. The lights are turned on during nighttime, as long as they aren't damaged and there is no fighting nearby.

Q: The numeric values of ammunition and fuel in operation phase has nothing in common with the color-coded icons and numeric values on tooltips. It can show 150 per cent of fuel with actual 68 per cent, or 25 per cent of ammo while the ammo is full!

A: This is not a numeric value of ammunition. This is the 'cost' of resupply relative to the general issue ammunition unit the reserves have (the number in the lowest table entry, ammunition column). A rifle squad for example does not need much ammo, to resupply one you need 25-50% of an ammo unit. Machineguns spend much more ammunition, to restock it you need 100%. A gun's 300% are obvious, ammo weight is way more than rifle rounds.

7.1 KNOWN PROBLEMS AND BUGS

1) The ATI/AMD videocards with some driver versions display the terrain incorrectly, with black areas or blinking triangles on high quality settings.

IT IS RECOMMENDED to turn off the option 2.7 "High dynamic range".

2) In the same cases the trenches are displayed incorrectly until the camera is right near them.

IT IS RECOMMENDED to raise the camera as high as possible before the end of deployment phase and to not lower it until all units are placed!

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Since 1999, Paradox Interactive has been a leading global developer and publisher of PC-based strategy games. World-renowned for its strategy catalog, the company holds a particularly strong presence in the United States and Europe. Its steadily-growing portfolio includes originally developed titles such as the critically acclaimed Europa Universalis and the Hearts of Iron franchises, as well as publishing titles such as the Penumbra series, Supreme Ruler 2020, Elven Legacy, Mount&Blade and Majesty 2 – The Fantasy Kingdom Sim. For more information, please visit www.paradoxplaza.com and follow @pdxinteractive on twitter.

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